Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in this application.

1. (Currently amended) A peptide having an amino acid sequence ~~selected from the group consisting~~ of ~~RRQRRQRR (SEQ ID NO:98),~~ RRQRRQRRQRR (SEQ ID NO:99).

2. (Original) The peptide of claim 1 wherein said peptide facilitates cellular internalization of a cargo linked thereto.

3-4 (Canceled)

5. (Original) The peptide of claim 1 wherein the peptide provides for nuclear translocation in a target cell.

6. (Currently amended) A peptide-cargo complex comprising a peptide and a cargo wherein the peptide has an amino acid sequence ~~selected from the group consisting~~ of ~~RRQRRQRR (SEQ ID NO:98),~~ RRQRRQRRQRR (SEQ ID NO:99).

7. (Original) The peptide-cargo complex of claim 6 wherein the cargo is selected from the group consisting of a polynucleotide, a polypeptide, a small molecule, a virus, a modified virus, a viral vector, and a plasmid.

8. (Original) The peptide-cargo complex of claim 6 wherein the cargo is a virus selected from the group consisting of adenovirus, adeno-associated virus, herpes simplex virus, and retrovirus.

9. (Original) The peptide-cargo complex of claim 6 wherein the cargo is selected from the group consisting of therapeutic proteins, suicide proteins, tumor suppressor proteins, transcription factors, kinase inhibitors, kinases, cell cycle regulatory proteins, apoptotic proteins, anti-apoptotic proteins, viral antigens, cellular antigens, differentiation factors, immortalization factors, toxins, antibodies and inhibitors of NF-.kappa.B.

10. (Original) The peptide-cargo complex of claim 6 wherein the peptide facilitates cellular internalization of cargo linked thereto.

11. (Original) The peptide-cargo complex of claim 6 wherein the peptide provides for nuclear translocation of said peptide-cargo complex in a target cell.

12. (Previously presented) The peptide-cargo complex of claim 6 wherein the peptide-and the cargo are linked by an avidin bridge.

13. (Original) The peptide-cargo complex of claim 9, wherein the cargo is an apoptotic protein selected from the group consisting of p53, caspase-3, HSV thymidine kinase and an antimicrobial peptide.

14. (Original) The peptide-cargo complex of claim 6 wherein the cargo is glutathione.

15-41. (Canceled)

42. (Currently amended) An immunogen comprising a peptide-cargo complex wherein said peptide has an amino acid sequence ~~selected from the group consisting~~ of ~~RRQRRQRR (SEQ ID NO:98),~~ RRQRRQRRQRR (SEQ ID NO:99).

43. (Canceled)

44. (Canceled)

45. (Original) The immunogen of claim 42 wherein the cargo is selected from the group consisting of a polynucleotide, a polypeptide, a protein, a virus, a modified virus, a viral vector, and a plasmid.

46. (Original) The immunogen of claim 42 wherein the cargo is an antigen.

47. (Currently amended) The immunogen of claim 42 wherein the cargo is an HIV protein selected from the group consisting of Gag, Pol, Env, Tat, Nef, Vpr, Vpv, and Rev.

48-50. (Canceled)

51. (Previously presented) A purified peptide, the sequence of which is RRQRR (SEQ ID NO:97).

52. (Previously presented) A peptide-cargo complex comprising a peptide and a cargo wherein the sequence of the peptide is RRQRR (SEQ ID NO:97).

53. (Previously presented) The peptide-cargo complex of claim 52 wherein the cargo is selected from the group consisting of a polynucleotide, a polypeptide, a small molecule, a virus, a modified virus, a viral vector, and a plasmid.

54. (Previously presented) The peptide-cargo complex of claim 52 wherein the cargo is a virus selected from the group consisting of adenovirus, adeno-associated virus, herpes simplex virus, and retrovirus.

55. (Previously presented) The peptide-cargo complex of claim 52 wherein the cargo is selected from the group consisting of therapeutic proteins, suicide proteins, tumor suppressor proteins, transcription factors, kinase inhibitors, kinases, cell cycle regulatory proteins, apoptotic proteins, anti-apoptotic proteins, viral antigens, cellular

antigens, differentiation factors, immortalization factors, toxins, antibodies and inhibitors of NF-.kappa.B.

56. (Previously presented) The peptide-cargo complex of claim 52 wherein the peptide facilitates cellular internalization of cargo linked thereto.

57. (Previously presented) The peptide-cargo complex of claim 52 wherein the peptide provides for nuclear translocation of said peptide-cargo complex in a target cell.

58. (Previously presented) The peptide-cargo complex of claim 52 wherein the peptide and the cargo are linked by an avidin bridge.

59. (Previously presented) The peptide-cargo complex of claim 52, wherein the cargo is an apoptotic protein selected from the group consisting of p53, caspase-3, HSV thymidine kinase and an antimicrobial peptide.

60. (Previously presented) The peptide-cargo complex of claim 52 wherein the cargo is glutathione.

61. (Previously presented) The peptide-cargo complex of claim 52 wherein the peptide is biotinylated and the cargo is avidin-labeled.

62. (Previously presented) An immunogen comprising a peptide-cargo complex wherein the sequence of said peptide is RRQRR (SEQ ID NO:97).

63. (Previously presented) The immunogen of claim 62 wherein the cargo is selected from the group consisting of a polynucleotide, a polypeptide, a protein, a virus, a modified virus, a viral vector, and a plasmid.

64. (Previously presented) The immunogen of claim 62 wherein the cargo is an antigen.

65. (Currently amended) The immunogen of claim 62 wherein the cargo is an HIV protein selected from the group consisting of Gag, Pol, Env, Tat, Nef, Vpr, Vpv, and Rev.

66. (New) A purified peptide, the sequence of which is RRQRRQRR (SEQ ID NO:98.

67. (New) A peptide-cargo complex comprising a peptide and a cargo wherein the sequence of the peptide is RRQRRQRR (SEQ ID NO:98).

68. (New) The peptide-cargo complex of claim 67 wherein the cargo is selected from the group consisting of a polynucleotide, a polypeptide, a small molecule, a virus, a modified virus, a viral vector, and a plasmid.

69. (New) The peptide-cargo complex of claim 67 wherein the cargo is a virus selected from the group consisting of adenovirus, adeno-associated virus, herpes simplex virus, and retrovirus.

70. (New) The peptide-cargo complex of claim 67 wherein the cargo is selected from the group consisting of therapeutic proteins, suicide proteins, tumor suppressor proteins, transcription factors, kinase inhibitors, kinases, cell cycle regulatory proteins, apoptotic proteins, anti-apoptotic proteins, viral antigens, cellular antigens, differentiation factors, immortalization factors, toxins, antibodies and inhibitors of NF-.kappa.B.

71. (New) The peptide-cargo complex of claim 67 wherein the peptide facilitates cellular internalization of cargo linked thereto.

72. (New) The peptide-cargo complex of claim 67 wherein the peptide provides for nuclear translocation of said peptide-cargo complex in a target cell.

73. (New) The peptide-cargo complex of claim 67 wherein the peptide and the cargo are linked by an avidin bridge.

74. (New) The peptide-cargo complex of claim 67, wherein the cargo is an apoptotic protein selected from the group consisting of p53, caspase-3, HSV thymidine kinase and an antimicrobial peptide.

75. (New) The peptide-cargo complex of claim 67 wherein the cargo is glutathione.

76. (New) The peptide-cargo complex of claim 67 wherein the peptide is biotinylated and the cargo is avidin-labeled.

77. (New) An immunogen comprising a peptide-cargo complex wherein the sequence of said peptide is RRQRRQRR (SEQ ID NO:98).

78. (New) The immunogen of claim 77 wherein the cargo is selected from the group consisting of a polynucleotide, a polypeptide, a protein, a virus, a modified virus, a viral vector, and a plasmid.

79. (New) The immunogen of claim 77 wherein the cargo is an antigen.

80. (New) The immunogen of claim 77 wherein the cargo is an HIV protein selected from the group consisting of Gag, Pol, Env, Tat, Nef, Vpr, Vpv and Rev.